UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,464	12/13/2000	Thorsten Laux	P-4589	9684

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EXAMINER
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ART UNIT	PAPER NUMBER
2194	

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*23 May 2006*</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 December 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-17 are pending in the current application.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

05/23/2006 has been entered.

Response to Amendment

3.   Applicant's amendment to claim 6 in the response filed 05/23/2006 obviates the

101 rejection to claims 6-10 presented in the Final Office dated 01/24/2006. Thus the

101 rejection for claims 6-10 is withdrawn.

Response to Arguments

4.   Applicant's arguments with respect to the claims have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

5.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6.   Claims 1 – 17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 6, 11 and 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention as a whole must be useful and accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. Examiner suggests that claims 1, 6, 11 and 13 do not appear to produce a "useful, concrete and tangible result". Claims 1, 6, 11 and 13 recite method/product/system for accessing a plurality of databases. The result of these claims is to perform an access operation and to search for stored data related to a single access operation in each of said plurality of databases. The search function does not appear to require or suggest the creation of results. For example, dependent claims 4, 9 and 16 recite the separate and additional step of obtaining results in response to the single access operation. This clearly shows that the single access operation is separate from the step of obtaining results. Therefore, the access and search function of the independent claims are drawn to nothing more than reading and comparing data from the database. Examiner suggests that accessing and searching without returning a result or null indicator is not producing a tangible result, which enables any usefulness of having done the search to be realized.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   **Claims 1 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable**

over U.S. Patent No. 5,903,890 to Shoji et al. [hereinafter Shoji, cited in the

previous office action] in view of U.S. Patent No. 6,792,416 to Soetarman et al.

[hereinafter Soetarman].

9.   As to claim 11, Shoji teaches the invention substantially as claimed including a

system comprising:

        a plurality of databases [databases 704 – 706, Fig. 1; col. 4, lines 18 – 35];

        a driver for each database in the plurality of databases [drivers 712 – 714, Fig. 1;

col. 4, lines 47 – 64] thereby forming a plurality of drivers wherein each driver has a

substantially identical driver application programming interface [database system of the

present invention comprises a plurality of database drivers which are hierarchically

equal. This structure is compatible with the digital cell technology. In this embodiment,

the database and interface drivers could be implemented as cells; col. 2, lines 43 – 56];

and

        a merging driver coupled to each driver in the plurality of drivers through the

driver application programming interface [interface driver 720, Fig. 1; col. 5, lines 39 –

60], wherein the merging driver distributes access operations to each driver in said

plurality of drivers [drivers 712 – 714, Fig. 1; col. 4, lines 47 – 64] so that the access

operations are directed to each of said plurality of databases [user can then click on one

of the logic relationships shown in a window 778 to select a search for the results of all

the databases; col. 5, lines 45 – 60]. Although Shoji teaches the invention substantially

as claimed, Shoji does not specifically teach distributing a single query to each driver so

that single query is directed to each of the plurality of databases to search for stored

data related to the single query.

However, Soetarman teaches a plurality of databases [federated datastore 100 is

a virtual datastore which combines several heterogeneous datastores 102 into a

consistent and unified conceptual view; col. 5, lines 48 – 60], a merging driver [Java

Grand Portal is a set of Java classes which provides access and manipulation of local

or remote data stored in Digital Library storage facilities; col. 5, lines 15 – 49], and

distributing a single query [a user can pass the federated query string to the execute or

evaluate method in the federated datastore to process the query directly; col. 19, lines

32 – 63] to each of the plurality of databases [DES datastore 620 enables searching a

Lotus Notes database 622, searching the Web 624, searching a file system 626, or

searching a relational database 628; col. 22, line 62 - col. 23, line 15] to search for

stored data [Searching involving heterogeneous datastores; col. 5, lines 15 – 60] related

to the single query [Each native query is submitted to the corresponding native

datastore for execution; col. 19, lines 32 – 63].

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combining the teachings of Soetarman and Shoji because

Soetarman's teachings allows the users to preserve the natural view to their favorite

datastore as well as access them in conjunction with other datastores in a federated

context [col. 7, lines 6 – 16 of Soetarman] and provides the user an ability to search

numerous storage facilities at the same time without having to consider the particular

implementation of each storage facility [col. 3, lines 55 – 60 of Soetarman].

10.   As to claim 1, Shoji teaches the invention substantially as claimed including a

method for enabling access of a plurality of databases [databases 704 – 706, Fig. 1; col.

4, lines 18 – 35] by a single access operation [col. 5, lines 45 – 60] wherein each

database in the plurality of databases requires a separate driver to access the database

so that there is a plurality of separate drivers [drivers 712 – 714, Fig. 1; col. 4, lines 47 –

64], the method comprising:

using an API for each driver in the plurality of separate drivers [drivers 712 – 714,

Fig. 1; col. 4, lines 47 – 64], wherein the API is substantially identical for each of the

drivers in the plurality of separate drivers [col. 2, lines 43 – 56]; and

receiving the single access operation by a merging driver [interface driver 720,

Fig. 1; col. 5, lines 39 – 60] wherein in response to the single access operation [user

can then click on one of the logic relationships shown in a window 778 to select a

search for the results of all the databases; col. 5, lines 45 – 60], the merging driver

accesses each driver in the plurality of separate drivers through the API [drivers 712 –

714, Fig. 1; col. 4, lines 47 – 64]; and

accessing an associated database in said plurality of databases [col. 4, lines 18 –

35] by said each driver [col. 4, lines 47 – 64] in response to said merging driver

[interface driver 720, Fig. 1; col. 5, lines 44 – 60] access through said API [col. 5, lines

45 – 60].

Although Shoji teaches the invention substantially, Shoji does not specifically

disclose a single access operation enabled access of said plurality of databases to

search for stored data related to said single access operation in each of said plurality of

databases.

However, Soetarman teaches a plurality of databases [federated datastore 100 is

a virtual datastore which combines several heterogeneous datastores 102 into a

consistent and unified conceptual view; col. 5, lines 48 – 60], a merging driver [Java

Grand Portal is a set of Java classes which provides access and manipulation of local

or remote data stored in Digital Library storage facilities; col. 5, lines 15 – 49], an

application programming interface for each database [all of these datastores 100 and

102 have the same interface; col. 6, lines 18 – 27], and distributing a single query [a

user can pass the federated query string to the execute or evaluate method in the

federated datastore to process the query directly; col. 19, lines 32 – 63] to each of the

plurality of databases [DES datastore 620 enables searching a Lotus Notes database

622, searching the Web 624, searching a file system 626, or searching a relational

database 628; col. 22, line 62 - col. 23, line 15] to search for stored data [Searching

involving heterogeneous datastores; col. 5, lines 15 – 60] related to the single query in

each of the plurality of databases [Each native query is submitted to the corresponding

native datastore for execution; col. 19, lines 32 – 63].

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combining the teachings of Soetarman and Shoji because

Soetarman's teachings allows the users to preserve the natural view to their favorite

datastore as well as access them in conjunction with other datastores in a federated

context [col. 7, lines 6 – 16 of Soetarman] and provides the user an ability to search

numerous storage facilities at the same time without having to consider the particular

implementation of each storage facility [col. 3, lines 55 – 60 of Soetarman].

11.   As to claim 6, this is a product claim that correspond to method claim 1; note the

rejection to claim 1 above, which also meet this product claim.

12.   As to claim 13, this is a system claim that correspond to method claim 1; note the

rejection to claim 1 above, which also meet this system claim. As to the additional

limitations, Shoji teaches a processor [CPU 604, Fig. 8; col. 15, lines 20 – 35] and a

memory coupled to the processor [system memory 606, Fig. 8; col. 15, lines 20 – 35].

13.   As to claim 2, Shoji teaches receiving from a user a selection of each database

to be included in the plurality of databases [an application 724 to specify the databases

to be searched...displaying information relating to a selected database; col. 5, lines 38 –

62].

14.   As to claim 3, Shoji as modified teaches a database in the plurality of databases

is a merging data source [Database system 700 contains a plurality of single-

association databases, such as databases 704-706, col. 4, lines 18 – 35 of Shoji and

see also col. 5, lines 48 – 60 of Soetarman].

15.   As to claim 4, Shoji teaches obtaining results [col. 4, line 63 – col. 5, line 22] but

does not specifically teach obtaining an ordered result in response to the single access

operation. However, Soetarman teaches obtaining an ordered result in response to the

single access operation [federated result set cursor object provides the facility to

separate query results according to the source native datastores; col. 20, lines 9 – 17].

It would have been obvious to a person of ordinary skilled in the art at the time the

invention was made to combine the teachings of Soetarman and Shoji because

Soetarman's teachings allows programs to manipulate data objects resulting from a

multi-search query to heterogeneous datastores in a federated result set cursor that

embodies result set cursors from each heterogeneous datastore and preserves the sub-

grouping relationships of data objects contained in the result set cursors from each

heterogeneous datastore [col. 28, lines 36 – 54 of Soetarman].

16.   As to claim 5, Shoji teaches accessing the merging driver through a user

interface API [graphic display 740, Fig. 2A; col. 4, line 64 – col. 5, line 21 of Shoji].

17.   As to claims 7 – 10, these are product claims that correspond to method claims 2

– 5; note the rejections to claims 2 – 5 above, which also meet these product claims.

18.   As to claim 12, see the rejection to claim 3 above.

19.   As to claims 14 – 17, these are system claims that correspond to method claims

2 – 5; note the rejections to claims 2 – 5 above, which also meet these system claims.

Conclusion

20.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

U.S. Patent No. 6502088 discloses an improved access to databases in a

computer system.

U.S. Patent No. 6523035 discloses a management console that integrates a

plurality of disparate database utilities with a unified graphical user interface.

U.S. Patent No. 5987465 discloses a common interface to a plurality of

heterogeneous database management systems.

CONTACT INFORMATION

21.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768.

The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Thomson can be reached on 571-272-3718. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

                                                            Li B. Zhen
                                                            Examiner
                                                            Art Unit 2194
                                                            August 18, 2006

LBZ